

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1-4. (canceled).

5. (currently amended): A peripheral device for a programmable logic controller, comprising:

a processor; and

a memory storing software modules, the software modules comprising:

an instruction table for storing instructions and storing corresponding input/output types of parameters for the instructions, wherein the input/output types of the parameters for the instructions comprise an input type, an output type, and an internal type;

a search and determination means for searching the instruction table for an instruction in a code in a portion of a sequence program selected as diversion data from an existing diversion-source sequence program, to determine a corresponding input/output type of a parameter for the instruction;

a search result creating and storing means for creating and storing a search result table by combining [[an]]at least one of input/output address and internal address in the code in the selected portion of the sequence program, with the determined corresponding input/output type;

a component data creating means for creating a variable data table by automatically replacing the determined corresponding input/output types stored in the search result table with variable names, and for creating component data by adding the corresponding variable names to variables and to circuit information; [[and]]

a component data diversion means for diverting the component data into an arbitrary position in a designated sequence program;

a sequence-program-component storing means for storing into a component storage the created component data as a sequence program component;

a sequence-program-component displaying device for displaying the sequence program components stored in the component storage;

a sequence-program-component selecting means for selecting a desired sequence program component from the sequence program components displayed by the sequence-program-component displaying device; and

a sequence-program-component diversion means for diverting the selected sequence program component into a new sequence program.

6. (canceled).

7. (currently amended): A program creating method of copying a portion of an existing sequence program and pasting the portion into a new sequence program, for a peripheral device for a programmable logic controller, the method comprising:

a search and determination step of searching an instruction table for storing instructions and storing corresponding input/output types of parameters for the instructions, for an instruction in a code in a portion of the sequence program selected as diversion data from an existing diversion-source sequence program, to determine a corresponding input/output type of a parameter for the instruction in the code, wherein the input/output types of the parameters for the instructions comprise an input type, an output type, and an internal type;

a search result creating and storing step of creating and storing into a memory a search result table by combining the determined corresponding input/output type, with [[an]]at least one of input/output address and internal address in the code in the selected portion of the sequence program;

a component data creating step of creating a variable data table by automatically replacing the determined corresponding input/output types stored in the search result table with variable names, and of creating component data by adding the corresponding variable names to variables and to circuit information; [[and]]

a component data diversion step of diverting the component data into an arbitrary position in a new sequence program as a diversion destination;

a sequence-program-component storing step of storing into a component storage the created component data as a sequence program component;

a sequence-program-component displaying step of displaying the sequence program components stored in the component storage;

a sequence-program-component selecting step of selecting a desired sequence program component from the sequence program components displayed in the sequence-program-component displaying step; and

a sequence-program-component diversion step of diverting into a new sequence program the desired sequence program component that has been selected.

8-10. (canceled).

11. (previously presented): The peripheral device for the programmable logic controller according to claim 5, wherein a user selects the portion of the sequence program from the existing diversion-source sequence program being displayed.

12. (previously presented): The program creating method according to claim 7, for the peripheral device for the programmable logic controller, the method further comprising a user selecting the portion of the sequence program from the existing diversion-source sequence program being displayed.

13. (currently amended): A peripheral device for a programmable logic controller, comprising:
a processor; and
a memory storing software modules, the software modules comprising:

an instruction table that stores instructions and stores corresponding input/output types of parameters for the instructions, wherein the input/output types stored in the instruction table comprise at least one of an input type, an output type, or an internal type;

a search and determination module that searches the instruction table for an instruction in a code in a portion of a sequence program selected as diversion data from an existing diversion-source program, to determine a corresponding input/output type of a parameter for the instruction;

a search result creating and storing module that creates and stores a search result table by combining [[an]]at least one of input/output address and internal address in the code in the selected portion of the sequence program, with the determined corresponding input/output type;

a component data creating module that creates a variable data table by automatically replacing the determined corresponding input/output types stored in the search result table with variable names, and creates component data by adding the corresponding variable names to variables and to circuit information; [[and]]

a component data diversion module that diverts the component data into an arbitrary position in a designated sequence program;

a sequence-program-component storing module for storing into a component storage the created component data as a sequence program component;

a sequence-program-component displaying device for displaying the sequence program components stored in the component storage;

a sequence-program-component selecting module for selecting a desired sequence
program component from the sequence program components displayed by the sequence-
program-component displaying device; and

a sequence-program-component diversion module for diverting the selected sequence
program component into a new sequence program.

14. (canceled).